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ABSTRACT

This report on teacher recruitment and retention in Texas identifies and analyzes programs offered by higher education institutions, school districts, regional education service centers, and other organizations that address the teacher shortage in Texas. The study was undertaken with the understanding that teacher compensation issues are pervasive and important to the recruitment and retention of qualified teachers. The report addresses efforts by Texas institutions to recruit and train qualified teachers for public schools and to recommend programs and policies to improve the effectiveness of these efforts. The report begins by explaining the problem of teacher shortage and noting responses to the shortage. It examines teacher recruitment, focusing on college and university recruiting efforts, alternative certification program recruitment efforts, and school district recruitment efforts. Next, it discusses teacher retention, focusing on efforts by school districts and looking at collaborative retention efforts. Finally, it presents recommendations for teacher recruitment, for teacher retention, and for information about professional opportunities in teaching. Three appendixes present a national perspective on teacher recruitment and retention, project respondents, and educator preparation programs by region. (SM)

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Texas Teacher Recruitment and Retention Study

February 1999

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Texas Teacher Recruitment and Retention Study

Executive Summary

This report on teacher recruitment and retention in Texas is a collaborative project of the Texas Education Agency, Texas Higher Education Coordinating Board, State Board for Educator Certification, Region XX Education Service Center, and Texas Center for Educational Research. The purpose is to identify and analyze programs offered by higher education institutions, school districts, regional education service centers, and others that address the teacher shortage in Texas. The information provides a context for recommendations to reduce the shortage of teachers by improving and expanding teacher recruitment and retention programs throughout the state.

This study was undertaken with the understanding that teacher compensation issues are pervasive and important to the recruitment and retention of qualified teachers for Texas schools. In fact, teacher salaries are an important consideration in various studies and proposals being presented to Texas policymakers during the 76th Legislative Session. This report has a narrower purpose: to address the efforts of Texas institutions to recruit and retain qualified teachers for public schools and to recommend programs and policies that will improve the effectiveness of those efforts

The Teacher Shortage Problem

Texas is experiencing a teacher shortage that is a serious and growing problem. The shortage varies in its severity by region and by school district, but it exists in every part of the state, and it is deepening. Districts report difficulties hiring qualified teachers at every level and subject, and they experience serious shortages of teachers in math, science, special education, bilingual education, foreign languages, and technology. Texas school districts are also seeking more minority teachers. Because of the diversity in the student population, the importance of diversity in the teaching population cannot be overstated.

The Texas teacher shortage is complicated by many factors. A primary factor driving demand is rising student enrollments. Teacher supply is affected by enrollments in teacher preparation programs at institutions of higher education and alternative certification programs. The programs are not producing enough teachers both to staff increased enrollment and replace teachers who leave the profession. Another potential reason for shortages is lack of state and local resources to maintain competitive salaries, keep class sizes low, and provide adequate facilities and supplies for instruction.

Estimates are that one-third to one-half of all teachers leave the field within five years of beginning as a teacher. Attrition occurs at all levels of experience for a variety of reasons: retirement, family moves, family and child-rearing considerations, desire for higher compensation, and working conditions in the schools. Another complicating factor is the skilled labor shortage in the Texas economy and the competition for people with

math, science, and technology backgrounds. Schools have difficulty competing with private industry when they try to recruit individuals who have recently completed an undergraduate degree program with an emphasis in these high-demand fields, and school districts have difficulty retaining teachers for the same reasons.

Response to the Shortages

When shortages occur, school officials first fill teaching positions with individuals certified in other fields. This occurs most commonly at the secondary level, and when it happens, a teacher is usually asked to teach a class out of his or her field. In Texas, the data document the too-frequent use of teachers certified in other areas to teach math and science. When certified teachers are not available, school districts hire teachers on emergency permits or staff classes with long-term substitute teachers. These actions, in turn, may have consequences for student performance.

Teacher Recruitment

Strong recruitment is one half of the equation to increase the supply of good teachers. Texas teacher training programs need to expand their capacity and emphasize recruitment of qualified candidates who are already thinking about a career in teaching. One recruitment tool is to provide easy access to good information about teaching and certification. Another tool is direct contact with target groups of individuals who may be especially interested in teaching, such as retired military personnel, education paraprofessionals, and capable high school students. Perhaps the most important recruiting tool is financial support to individuals for education and certification expenses.

College and University Recruiting Efforts

Certification programs based at higher education institutions supply the largest number of incoming teachers for Texas schools, but these programs often rely on university admissions offices to undertake recruiting activities. Some certification programs conduct their own outreach, attending high school career fairs and Future Teachers of America meetings and by creating web sites. In general, there is no specific set of recruiting techniques associated with educator preparation programs and only isolated direct efforts to target students who might make good teachers. Most frequently, self-selection rather than recruitment is the primary stimulus for enrollment in a teacher certification program.

Alternative Certification Program Recruitment Efforts

Alternative certification programs focus their recruiting efforts within the communities served by the school districts that are their partners. A few school districts even sponsor their own approved alternative certification programs. Candidates for alternative certification already have undergraduate degrees and, usually, several years of work experience. Programs advertise their opportunities at school district offices; in newspapers; and through web sites, brochures, and job fairs.

School District Recruiting Efforts

School districts undertake various recruitment activities that can be organized into two general categories. The first category is recruitment of teachers new to the field. Many districts develop relationships with institutions of higher education and alternative certification programs to ensure a supply of teachers. The second recruitment approach is to attract teachers away from other states and other Texas districts. Some school districts also recruit employees from within by helping teachers to earn new certification in a shortage area or by encouraging paraprofessionals to become certified teachers. Many Texas school districts rely on services from their regional education service center including job banks, job fairs, and resume screening to recruit both new and currently employed teachers.

Teacher Retention

Retaining teachers, the second part of the equation to increase teacher supply, is just as important as recruiting in alleviating teacher shortages. The Panel for Texas Novice Teacher Induction Support stated in its 1998 report that 19 percent of new teachers leave after the first year of teaching primarily because they fail to get badly needed professional support in the first critical years of their careers. A 1995 report from the Texas Education Agency reports that first-year teachers leave the school district in which they had been teaching at a rate of 15.6 percent and leave the profession at a rate of 15.8 percent. These findings suggest that the first years of a teacher's career are a critical retention factor, and programs that make these years rewarding and successful should be promoted and implemented.

A national study reports that a little over a quarter of those who leave teaching do so to retire while another quarter leave because of a family move or because they need time for child bearing or child rearing. Roughly six percent report leaving because of low salaries and/or benefits, and about 12 percent leave because they are dissatisfied with teaching or for other personal reasons. Undesirable working conditions such as deteriorating facilities, lack of supplies and materials, and schedules that include class assignments outside the field of certification may lead to dissatisfaction and attrition from the profession.

School District Retention Efforts

In surveys conducted for this study, better staff development was often mentioned as a retention tool. Some districts offer annual stipends to retain teachers in shortage areas. One district reported that it has a student-loan cancellation plan to support teachers who seek additional certification in a shortage area. Districts also support teachers with personal computers, higher salaries, more district-paid benefits, and higher stipends for extra duty assignments.

School district administrators believe that induction-year programs and mentoring are promising approaches to helping retain new teachers. However, administrators expressed concern over insufficient financial resources to provide mentors with pay and release time. Other evidence suggests that most Texas school districts provide very little

true induction assistance. The Panel for Texas Novice Teacher Induction Support studied programs in Texas and recommended that Texas teachers receive a minimum two years of induction programming, with the first year focused on the basic mechanics of teaching and a second year emphasizing effective instructional practices.

Collaborative Retention Efforts

School districts, regional education service centers, and higher education institutions are beginning to link teacher preparation with induction and professional development. The Texas Teacher Recruitment, Retention, and Assistance Program, in particular, is targeted toward addressing the shortage problem and increasing the diversity of the teaching population through pre-service assistance and support for teachers in the early years of their careers.

Recommendations for Teacher Recruitment

- Provide financial incentives to prepare teachers for Texas public schools. Incentive programs and opportunities should be well publicized and serve as a recruiting tool for all approved programs, including alternative certification programs. Financial incentives should include the following:

  ◊ Develop a Texas Educator Scholarship Program targeted toward outstanding high school students and adults changing careers who enroll in teacher certification programs.

  ◊ Implement a loan forgiveness program for individuals who prepare for and teach in shortage areas.

  ◊ Fund the Texas Future Teachers Loan Fund and publicize the program.

  ◊ Provide financial incentives to institutions that certify teachers in shortage areas.

  ◊ Texas should devise a way to provide compensation for the field-based activities of preservice teachers.

  ◊ Provide discretionary funding to encourage higher education institutions and school districts to collaborate on activities to address critical teacher shortages.

  ◊ Employ staff whose responsibility it is to enlist the media to publicize the teacher shortage problem as well as opportunities to enter the profession.

Recommendations for Teacher Retention

- Develop, implement, and fund teacher induction programs in Texas public schools to assist new teachers in their first two years.

- ◊ Provide resources to link initial preparation and induction into the profession by increasing collaboration between the preparation programs and school districts.

- ◊ Provide funds to school districts to support induction activities, including stipends for mentor teacher programs and additional resources to implement a dynamic performance assessment system that will guide the continuing development of new teachers.

- Provide financial support to teachers already in Texas classrooms who are willing to work toward new certification in a shortage field.

- Provide increased support for educator preparation programs to offset the increased cost of field-based preparation.

- Provide a grant application program for school districts to encourage development of innovative teacher retention programs. Innovative approaches might include child care arrangements for teachers' children, support for teacher networks, new models for professional development, and other local initiatives.

Recommendations for Improving Information About Professional Opportunities in Teaching

- Support and enhance efforts already underway to provide a central source of information for individuals seeking Texas teacher certification.

- Implement a data system to track pre-service teachers, employed teachers, and former teachers. Data from the system would permit the study of effectiveness of financial incentives in recruiting teachers. It would also provide information about working conditions for teachers and reasons for attrition..

- Implement a comprehensive electronic statewide job bank that is an effective tool for certified individuals to seek teaching positions in Texas and that also serves as an effective tool for school districts seeking qualified teachers.

It seems clear that Texas teacher preparation programs and school districts need a coordinated system of teacher preparation and teacher employment. A well-articulated system would improve recruitment, link preparation and certification with actual employment requirements, and support new teachers so that they are more likely to remain in teaching for five or more years.

Texas Teacher Recruitment and Retention Study

Introduction

This report on teacher recruitment and retention in Texas is a collaborative project of the Texas Education Agency (TEA), Texas Higher Education Coordinating Board, State Board for Educator Certification (SBEC), Region XX Education Service Center, and Texas Center for Educational Research. The purpose is to identify and analyze programs offered by higher education institutions, school districts, regional education service centers, and others that address the teacher shortage in Texas. The information provides a context for recommendations to reduce the shortage of teachers by improving and expanding teacher recruitment and retention programs throughout the state.

This study was undertaken with the understanding that teacher compensation issues are pervasive and important to the recruitment and retention of qualified teachers for Texas schools. In fact, teacher salaries are an important consideration in various studies and proposals being presented to Texas policymakers during the 76th Legislative Session. This report has a narrower purpose: to address the efforts of Texas institutions to recruit and retain qualified teachers for public schools and to recommend programs and policies that will improve the effectiveness of those efforts.

Shortages and the Need for Trained Teachers

Teacher recruitment and retention is a topic of state and national interest. The growing need for new teachers, including minority teachers and teachers in critical shortage areas such as special education, bilingual education, mathematics, science, and technology has received a recent surge of media attention. This attention is driven, at least in part, by reports from the National Center for Education Statistics (NCES) and the National Commission on Teaching. NCES estimates that U.S. student growth will require about 800,000 new teachers over the next decade.[1] The National Commission on Teaching and America's Future estimates that as many as two million new teachers will be needed in the next decade to replace retiring teachers and to serve growing enrollments.[2] Many of those teachers will be needed in Texas schools.

Texas is experiencing a teacher shortage that is a serious and growing problem. The shortage varies in its severity by region and by school district, but it exists in every part of the state and it is deepening. Districts report difficulty hiring qualified teachers at every level and subject. They experience serious shortages of teachers in math, science, special education, bilingual education, foreign languages, and technology. Texas school districts are also seeking more minority teachers. Because of the diversity in the student population, the importance of diversity in the teaching population cannot be overstated.

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[1] National Center for Education Statistics. *Projections to 2007*. Washington, DC: NCES, 1997.
[2] National Commission on Teaching and America's Future. *Doing What Matters Most: Investing in Quality Teaching*. New York: NCTAF, 1997, p. 8.

The Texas teacher shortage is complicated by many factors. One factor is the demand for teachers to serve growing student enrollments. Projections for the decade from 1996 to 2006 suggest that demand for teachers, librarians, and counselors could grow by as much as 21 percent. The largest predicted growth rate (59 percent) will be in the demand for special education teachers. Demand for secondary teachers, primarily math and science, will increase by an estimated 22 percent.[3] The section that follows this introduction provides more information on student enrollment increases in Texas.

Teacher supply is also affected by enrollments in teacher preparation programs at institutions of higher education and alternative certification programs. Current enrollment and completion rates are not sufficient to meet projected demand for teachers in the next biennium. In addition, too few teacher certification candidates are preparing to teach in shortage areas of math, science, bilingual education, special education, foreign language, and educational technology.

Those prepared and certified by Texas institutions and programs do not all enter teaching when they complete their education. The attraction of higher salaries in competing industries leads some away from teaching. Other reasons why individuals do not teach vary from decisions made about where to live to considerations about the realities of teaching in many Texas schools where openings exist.

Another factor affecting shortages is teacher attrition.[4] Estimates are that perhaps one-third to one-half of all teachers leave the field within five years of beginning as a teacher. At one time, the Texas Education Agency estimated that half of novice teachers leave teaching after five years.[5] Attrition rates across the nation are highest in areas with concentrations of high-poverty schools.[6] Science teachers are also difficult to retain—the average number of years in the classroom is approximately four for beginning chemistry teachers and only slightly more for physics and biology teachers.[7]

Teacher retirement is another form of attrition that will affect Texas. School districts offering early retirement incentives as a method of reducing payroll costs may contribute to the attrition of experienced teachers and exacerbate the influence of retirement on teacher supply.

Another complicating factor for Texas and other states with strong economies is the skilled labor shortage and competition for people with experience in math, science, and technology. Schools have difficulty competing with private industry when they try to

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[3] Chris Pipho. "A Real Teacher Shortage," *Phi Delta Kappan*, Volume 80, Number 3, 1998, p.181.

[4] Teacher attrition roughly approximates the national attrition rate of about 1.1 percent per month for permanent employees, according to The Bureau of National Affairs, Inc., "Quarterly Report on Job Absence and Turnover," September 10, 1998.

[5] State Board for Educator Certification. *Report of the Panel on Novice Teacher Induction Support System*, August 7, 1998, p. 1.

[6] National Association of State Boards of Education. *The Numbers Game*. Alexandria, VA: NASBE, 1998, p.23

[7] Jeffrey Weld. "Attracting and Retaining High Quality Professionals in Science Education." Phi Delta Kappan on Line. March 1998.

recruit individuals who have recently completed an undergraduate degree program, and school districts have difficulty retaining teachers for the same reasons. In addition, school districts across Texas can recount instances of teachers leaving the field in order to earn substantially higher salaries in high technology businesses.

The teacher shortage problem has been identified in other states (see Appendix A for a summary of the national picture) and is acute in Texas. Student enrollment growth, too few individuals newly certified and willing to teach, attrition of less experienced teachers, teacher retirement, and a booming economy have all led to an increased focus on teacher recruitment and retention.

Shortages in Texas—The Impact of Student Population Growth

When the rate of student enrollment exceeds the rate at which new and returning teachers enter the classroom, teacher shortages occur. The Texas public schools have experienced phenomenal student growth over the last five years making it difficult for teacher preparation institutions to keep up. Total enrollment has grown by nearly 300,000 students from the 1992-93 school year to the 1996-97 school year, a five-year growth rate of 8.3 percent. Enrollment growth will require more teachers for Texas public schools.

The need for trained teachers becomes even more acute when the students entering the classrooms have needs beyond those of basic educational services. While the overall student population has been growing steadily, rates of growth in special populations have been three to four times higher. Classes for these students must sometimes be smaller, requiring more teachers than would be needed for similar numbers of new students entering the regular education program. Many classes for special populations require a teacher who has special certification for that field, meaning that school districts must compete for these teachers. Table 1 illustrates the growth in special student populations relative to the general population from 1992-93 to 1996-97.[8] These enrollment patterns have resulted in shortages of teachers certified and willing to teach in special education and bilingual education. Students may be enrolled in more than one program; therefore the enrollment growth in special programs shown in Table 1 will not sum to the total enrollment growth.

[8] Texas Education Agency. "Academic Excellence Indicator System, District Profiles," 1992-93 through 1996-97. Enrollment totals may not add as student may be enrolled in more that one program.

Table 1
Enrollment Change in Texas Schools from 1993 to 1997

Program	Enrollment Change	Percentage Change
Total Enrollment	293,233	8.29%
Bilingual/ESL	104,376	30.43%
Compensatory Education	299,601	19.43%
Gifted/Talented Education	53,820	21.75%
Special Education	81,739	22.44%
Vocational Education	180,967	36.73%

Source: Texas Education Agency – AEIS

The total number of teachers employed in Texas schools has grown as well. For the period 1992-93 to 1997-98, the number of full-time equivalent (FTE) teachers has grown from 219,000 to almost 254,500, an increase of over 16 percent. The relationship between who is certified and whether the number of certified teachers is sufficient to meet the needs of Texas school districts is complex. Data presented in Table 2 provide insight into teacher certification and teacher shortages in 1996-97.[9] Table 2 focuses on a five-year period of production of certified teachers by Texas institutions of higher education and alternative certification programs (ACPs). The sum of Column B and Column C equals Column A, the five-year total certified to teach. The difference between Column C and Column D is Column E—the number who are certified and are assumed to be available to work. Column F reports the sign of the total in Column E.

[9] State Board for Educator Certification. "Utilization and Retention in the Workplace of Teachers Certified in Texas," Austin: SBEC, 1998, unpublished.

Table 2
Teachers Certified in Texas from 1991-92 through 1995-96
Effect on Teacher Shortages and Surpluses in 1996-97

Grade and Subject	*Column A* 5 year Total Certified	*Column B* 96-97 Employed	*Column C* 96-97 Not Employed	*Column D* Non-certified & Employed in 96-97	*Column E* Certified & "Available" to Work	*Column F* Shortage (-) Surplus (+)
PK-K						
Regular	14,006	10,205	3,801	2,656	1,145	+
Bilingual	2,124	1,783	359	2,354	-1,995	-
Elem (1-6)						
Regular	37,830	26,833	10,997	3,894	7,103	+
Bilingual	3,544	2,857	687	3,360	-2,673	-
ESL	6,795	5,715	1,080	2,766	-1,686	-
Secondary				Permit/TCAP (>.5 day)		
Eng/LA	12,010	8,090	3,920	197/3,712	11	+
Math	5,230	3,738	1,492	313/2,331	-1,152	-
Science	5,945	4,185	1,760	172/1,842	-254	-
Soc. St.	9,338	6,405	2,933	145/1,916	872	+
PE/Health	6,266	4,903	1,363	116/759	488	+
For Lang	1,906	1,384	522	197/532	-207	-
Fine Arts	3,583	2,467	1,116	95/472	549	+
Comp Sci.	735	499	236	74/916	-754	-
Bus Ed	2,167	1,454	713	39/216	458	+
C&T	3,569	2,467	1,102	207/4,240	-3,345	-
ESL	7,247	5,940	1,307	113/850	344	+
Special Ed.	13,926	10,316	3,610	3,465	+145	+

Source: State Board for Educator Certification, 1998

Table 2 does not address the retention rate of persons who worked in another grade level or subject area after being certified at some point in the five-year period. The shift in assignment would have an impact on the surplus or shortage of teachers, and further analysis is required to determine the extent of that impact. In addition, the surpluses and shortages reported in Table 2 do not take into account factors related to the employment of teachers based on the availability of other assignments on the same campus. For example, a teacher with a mathematics certificate and a certificate to teach physics may not be teaching in a physics classroom because there is no need on that campus for a physics teacher. Yet, there may be such a need in another district. The teacher's unavailability for the physics assignment in the second district contributes to the shortage of physics/science teachers, even though the teacher is already teaching in a shortage area (such as math).

Table 2 shows a surplus of certified elementary, secondary social studies, health and physical education, fine arts, business education, secondary ESL, and special education teachers. These surplus numbers are computed based on imputed "availability" of recently certified personnel, as the SBEC report states. The individuals who are

"available" have not actually been contacted to ascertain their professional plans. Because Table 2 does not reveal information about individual willingness to teach, it should not be construed to mean that school districts have more applicants than jobs to fill, particularly for special education teachers. It is important to point out that a large proportion of special education-certified teachers are not teaching or are teaching in a field other than special education. There is even anecdotal evidence that special education-certified teachers who are also certified to teach in other areas seek to remove the evidence of special education certification from their records so that they are not encouraged to take special education assignments. A longitudinal study of special education teacher preparation and assignment has begun under the direction of Region IV Education Service Center and the TEA. This longitudinal study will shed light on the long-term professional experiences of individuals certified to teach special education in Texas.

Table 3 provides a different view of the relationship between school district need for certified teachers and the supply of teachers. The table shows assignment profiles for Texas teachers in 1996-97. As the table shows, over two thirds of Texas teachers were certified to teach the level and subject to which they had been assigned, and about 15 percent of teachers held no certification in the subjects they taught but could have been certified at another level or in another subject. Ed Fuller, a member of the research staff of the Dana Center at the University of Texas at Austin, is completing a comprehensive study of Texas teachers showing the number and percent of those certified and not certified by grade level and by class assignment. The National Center for Education Statistics recently published a report documenting the increased presence of teachers with emergency or temporary certification among inexperienced teachers.[10]

Having an appropriately certified teacher for every class is extremely important. It is not sufficient to assign just anyone with certification to teach a class that needs a teacher. It is also not effective to give teaching assignments to individuals with strong content knowledge but no teaching preparation. Texas students need knowledgeable and appropriately prepared teachers in order to achieve the high standards established by the Texas Essential Knowledge and Skills.

[10] L. Lewis, et al. *Teacher Quality: A Report on the Preparation and Qualifications of Public School Teachers*. Washington, DC: U.S. Department of Education, National Center for Education Statistics, January 1999, p. 2.

Table 3
Assignment Profiles of Texas Teachers, 1996-97

Level (grade)	Percent Certified	Percent certified and also teaching out of field [a]	Percent without certification or permit in current teaching assignment[b]
PreK and K	74.7	12.9	12.4
Elementary (1-6)	87.8	5.0	7.2
Middle/Junior High (7-8)	71.3	5.9	22.8
High School (9-12)	70.4	9.1	20.5
Special Ed. (K-12)	81.1	18.8[c]	20.5

Source: State Board for Educator Certification

[a] Teaching at this level in one area of certification and also teaching in an assignment out of their certification field or exclusively on permit.

[b] Held no certificate or permit at this level, but may be certified at another level or subject.

[c] Teaching on permit for the assignment area, but may be certified as a teacher.

Shortages in Texas—Other Factors Affecting Shortages

Increases in student population are not the only obstacles to ensuring that there is a certified teacher in every classroom. A robust economy has created labor shortages in all employment sectors. Just before the start of the 1998-99 school year, newspapers around the state were reporting significant teacher shortages in school districts.[11] In Houston, where there was a shortage of more than 300 teachers for the 1998-99 school year, the district was awarding signing bonuses of $2,000 to new teachers in math, science and some areas of special education.[12] The Dallas Independent School District paid one-time bonuses of $1,500 to each of its 900 new hires.[13] In Austin, nearly one hundred teachers were needed to fill vacancies in math, science, bilingual and special education as of July 31, 1998.[14]

The Texas Association of School Boards estimates that student growth plus replacement of teachers who left for retirement or other reasons was about 28,000 in 1996-97, an 11 percent increase.[15] In their annual survey of school districts, the Texas Association of School Boards and Texas Association of School Administrators found an increasing number of districts using stipends to attract teachers in shortage areas. Of the

[11] Salatheia Bryant. "Signing bonuses one option to fill teacher shortage." *Houston Chronicle,* Section A, July 27, 1998, p. 13; and Andy Alford and A. Phillips Brooks. "Days away from first bell, districts hunt for teachers." *Austin American-Statesman,* Metro and State, July 31, 1998, p. 1.

[12] *Houston Chronicle.* July 27, 1998.

[13] Ann Bradley. "New Teachers are Hot Commodity." Education Week on the Web. September 9, 1998.

[14] *Austin American-Statesman.* July 31, 1998

[15] Dane Adkinson. "Texas Teacher Supply and Demand." Austin: Texas Association of School Boards, 1998.

691 districts responding to the 1998-99 survey, approximately 36 percent used stipends to attract teachers in shortage areas, a 9 percent increase over 1997-98. The Administrative/Professional Survey data indicate that stipends are being paid primarily for teachers in bilingual, ESL, special education, chemistry, physics, and math. Larger school districts (with enrollment of 2,500 or more) are more likely to pay stipends. Ninety percent of districts enrolling over 50,000 students pay average stipends ranging from about $890 for science teachers to about $1,500 for bilingual education teachers.[16]

TEA has also developed a list of designated teacher shortage areas for the 1998-99 school year in conjunction with the U. S. Department of Education. Teachers in these designated shortage areas may be eligible to defer payments on federal student loans. For the current school year, the shortage areas include bilingual/ESL, foreign language, mathematics, sciences, and special education.[17]

Shortages in Texas—Math and Science Teachers

Looking at issues related to shortages can be complicated because many different factors come into play. Enrollment in math and science programs in colleges and universities has declined each year for the past five years. In addition the number of certified math and science teachers has declined. A study conducted for the Texas Association of School Boards and the Texas Association of School Administrators by Moak, Casey & Associates found that salaries for teachers of math and science, compared to those of other subject areas, were not significantly different, despite the fact that such teachers are in high demand.[18] In spite of similar salaries, Table 2 shows an acute shortage of math teachers at the secondary level and a modest shortage of science teachers.

When shortages exist, school district officials fill teaching positions with individuals certified to teach in other fields. This occurs most commonly at the secondary level and when it happens, a teacher is usually asked to teach one class out of his or her field. For example, an English teacher may teach four classes of English and a U.S. History class, or a biology teacher may be asked to teach one class of physics or chemistry. In Texas, the data document the frequent use of teachers teaching outside their fields in math and science classes. A comparison by SBEC of certified and non-certified teachers by subject area and grade level shows that for the 1996-97 school year, 39 percent of 7th and 8th grade math teachers and 33 percent of science teachers were not certified to teach those subjects. The report also shows that 33 percent of 7th and 8th grade language arts and 30 percent of social studies teachers were not certified in those

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[16] *TASB/TASA Administration/Professional Salary Survey Highlights*. "Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1998-99." Austin: TASB/TASA, 1999, p. 37.
[17] Texas Education Agency. "Memorandum to Superintendents: Designated Subject-Matter Teacher Shortage Areas for Texas and Information about Student Loan Deferment and Cancellation Opportunities for Teaches with Certain Types of Student Loans." Austin: TEA, September 28, 1998.
[18] Moak, Casey & Associates. *Analysis of the Impact of the 1997-98 Minimum Salary Changes*. Austin: Author, August, 1998, pp. 12-13.

subject areas.[19] Similar comparisons exist at the high school level (grades 9-12) where 25 percent of English I teachers, 22 percent of algebra I teachers, and 22 percent of physics teachers were teaching at least one class without certification for that particular class.[20]

Not only is it difficult to define a shortage based on the percentages of teachers teaching out of field, it is not clear what kinds of shortages these numbers represent. For example, in the 1996-97 school year, there were 601 teachers who taught algebra and who were not certified in that course. Because the shortage information indicates the number of individuals rather than full-time equivalents (FTEs) without proper certification, there is no way to know whether this represents only 600 classes or 3,000 to 4,000 classes without a certified teacher.

Shortages in Texas—Starting the School Year Without Teachers

Public school funding is closely tied to the number of students enrolled as well as their characteristics. Prudent school management requires accurate enrollment forecasting as well as monitoring of student enrollments and withdrawals throughout the year. Enrollment in Texas is growing at about 2 percent per year, with individual district growth rates varying from less than 1 percent to over 5 percent each year. In addition to tracking enrollment growth, school districts must also account for mobility of students within the public school system. According to data collected at the state level through the Public Education Information Management System (PEIMS), the Texas student mobility rate is nearly 20 percent each year.

School district uncertainty about enrollment levels and distribution within the district results in deferring hiring decisions until just before school starts, or even after the school year begins. As a result, some new teachers have virtually no time to prepare for the start of school and begin the year at a distinct disadvantage. Superintendents would prefer to have teachers hired in the spring of the prior school year, but doing so might result in budget difficulties if the district hires more teachers than are needed. Some superintendents, understanding the mobility of their student population and the instability of enrollment projections made during the spring, wait until a few weeks before school opens to fill some teaching positions. A last-minute push to hire teachers before school opens may be marked by radio announcements of teacher openings and eye-catching newspaper advertisements

Response to Shortages: Special Grants to Prepare Teachers for Shortage Areas

Texas has already acknowledged the need to prepare more teachers in shortage areas. SBEC has a grant program, open to all the Centers for Professional Development of Teachers (CPDTs) to support higher education institutions as they strive to attract and

[19] State Board for Educator Certification. *Who is Teaching in the Texas Public Schools?* Austin: State Board of Educator Certification, p. 14.
[20] Ibid. p. 23.

prepare fully certified teachers in identified critical shortage areas.[21] The areas identified as critical shortage areas for the state include bilingual education, ESL, science, mathematics, other languages, computer information systems, career and technology education, and special education.

Six universities were each awarded grants of approximately $100,000 under this program to develop models for addressing needs in teacher shortage areas: University of Mary Hardin Baylor (Belton), Abilene Christian University, Our Lady of the Lake University (San Antonio), University of Houston, University of Texas-Pan American (Edinburg), and West Texas A&M University (Canyon). Several of these universities responded to project inquiries about their programs. Summaries of these programs are included below.

University of Mary Hardin Baylor (UMHB)

The University is using the SBEC shortage grant to provide scholarships for teacher aides pursuing certification. The program is administered by the Center for Professional Development and Training and UMHB, and has an enrollment of approximately eight students each semester.

The program is offered in both the Belton and Temple Independent School Districts. Originally, the program was to offer university classes on site at a school in Temple, but more program flexibility was needed to accommodate the schedules and specific class needs of participants. Some program participants are working to finish their undergraduate education; others are taking required courses in education or methods for certification. Because there are not enough program participants to make a full class, UMHB uses the SBEC program money to provide tuition grants during the summer when traditional sources of financial aid are not available.

Abilene Christian University

Abilene Christian University and the Big County CPDT are using grant money to develop a model to increase the number of special education teachers in west central Texas. Known as Project PRIME (Preparation, Recruitment and Retention for Inclusive Multicultural Education), the project targets special education teachers and seeks to give them a broad range of resources for dealing with the demands of their profession.

The project will target high school students interested in teaching, those seeking alternative certification, aides, and substitute teachers as a potential pool for this shortage area. The model has four areas of emphasis: inclusive practices, collaboration, diversity, and technology. The model proposes to use traditional techniques and distance learning programs to develop its students.

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[21] Request for Application: Center for Professional Development of TeachersXPhase 21 Models to Eliminate Teacher Shortages in Critical Subject Areas 1998-99. Austin: State Board for Educator Certification, July 6, 1998.

University of Houston

The University of Houston is using its SBEC grant for three project components. The first is a public relations and media campaign designed to encourage people in Houston to consider teaching as a profession. This effort is supported by staff members in the university and school districts who devote their time to helping people who phone the program to apply for teacher education programs or a teaching position with a school district.

The second program component targets middle school and upper elementary school mathematics. The grant money will fund a four-course math sequence taught via interactive television by university math department faculty members. This will provide additional training and allow for certification of individuals who do not currently have strong mathematics backgrounds.

The third part is an academy for middle school math teachers who will attend eight all-day training sessions during the spring and summer. The training is based on the Texas Essential Knowledge and Skills and the National Council of Teachers of Mathematics standards and effective teaching practices. Up to 25 teachers from four school districts will participate. After participating in the training, each teacher will work with one other math teacher and host a prospective math teacher as part of the process.

West Texas A&M University (WTAMU)

West Texas A&M University is working with the Amarillo, Canyon, and Hereford Independent School Districts to identify teachers who want to teach in the areas of mathematics, foreign language, bilingual or ESL and are not fully certified in the appropriate area. The program is also seeking to identify currently enrolled university students who are potential mathematics teachers. The program seeks both students who are majoring in mathematics and those with interdisciplinary majors who have mathematics as their concentration and encourages them to consider certification. WTAMU is concentrating on the following certification areas: mathematics, bilingual education, ESL, and foreign language.

The certification program is developing and offering web-based courses. Beginning in January 1999, three web-based courses will be on-line. These courses are designed for students and teachers who have not received previous training for certification; for example, teachers who are teaching on an emergency/temporary certificate in the area they majored, but with no education courses. The program is also offering three courses off-campus for students, aides, and teachers. These courses are in mathematics, bilingual education, and ESL. The program provides tutoring sessions for certified teachers who want to take the ExCET test to seek certification in one of the identified areas. Finally, area high school students were invited to a "Discover Teaching" day to introduce them to the teaching profession. Two hundred thirty-nine students attended, of which approximately 30 percent were minority students.

Responses to Shortages: Teacher Recruitment

A report by the National Conference of State Legislatures indicates that 52 percent of all new teachers make the decision to enter teaching before entering college, and another 38 percent make the decision some time during the course of their college education.[22] If classroom teaching vacancies were to be filled solely with newly trained teachers out of undergraduate institutions and ACPs, then there will still not be enough qualified individuals to fill teaching vacancies in the decade to come. Therefore an emphasis should be placed on recruiting additional qualified candidates into the field of public education as well as recruiting qualified individuals who are not currently teaching. In addition, certification program capacity may require expansion, and under enrolled programs should contemplate increased advertising and recruitment to attract more certification candidates.

The purpose of recruiting programs should be to attract people who are already thinking about a career in teaching. One tool for recruitment is easy access to good information about teaching and certification. The SBEC has created an Information and Support Center, accessible by toll free telephone number, e-mail, or Internet web site. The Information and Support Center provides telephone support for information requests, calls about certification and assessment, and comments on rules posted in the Texas Register. It reviews and processes applications for Certification by Examination and reviews and approves Paraprofessional Certificates. It processes requests for letters of Professional Standing and for Verification Letters listing examinee performance on certification tests taken more than five years ago. It distributes applications for the candidate subsidy program for national board certification, and processes general correspondence for SBEC. In addition, it distributes forms and assessment materials, maintains a web page, and publicizes its own services.

There are other recruitment activities that seek to interest capable individuals in completing requirements for certification. Troops to Teachers is an example. This program targets current and retired military personnel with information about teaching through job fairs, newsletters, telephone-based information and informal counseling, and a web site. According to Region XIII ESC where Troops to Teachers is supported, personal contact by telephone and reimbursement for some certification expenses through a federal program combined to make the program successful. Program funding has ceased and although there is interest in Washington in appropriating more funds, Congress has taken no action on the matter. Troops to Teachers in Texas continues to provide information but not access to special funds.

Another recruitment effort is the previously mentioned program to encourage classroom aides to become certified teachers. Several higher education institutions have such programs, and they all include an outreach component, typically to school districts where the aides work. A new state initiative, the Texas Certified Educational Aide Exemption Program, has provided over $715,000 of support for about 1,500 aides who

[22] National Conference of State Legislatures. *RTN/NCSL: State Policies to Improve the Teacher Workforce.* Denver, NCSL, undated, p. 31.

have undertaken additional education and training in order to become certified. Institutions with the highest enrollment of aides supported by this program are South Texas Community College (114), University of Texas—Brownsville (102), and University of Texas—Pan American (78). The Houston Independent School district has approximately 100 certified educational aides enrolled in this program. Although only enacted recently, this program has broad participation throughout the state, especially in regions with acute teacher shortages. According to the Texas Higher Education Coordinating Board, the largest number of requests for applications have come from persons who are aides in special education classrooms.

Providing information and support to high school students who are interested in teaching is another approach to targeting already interested individuals. Colleges and universities are increasing their outreach to high schools through information sessions, school visits, and activities in support of Future Teachers of America. School districts are also beginning to support future teacher groups not only to increase college enrollment of students but to interest students in returning to their home town or city to teach. An example of such a program is El Paso Independent School District's Socratic Institute.

An important factor in recruiting individuals to teaching is making sure that they know about the sources of financial support available to them for education and certification preparation. Currently there is not a central clearinghouse in Texas of such information, and institutions of higher education vary in their capacity to provide grant and scholarship support to people who want to enter a certification program.

School districts also undertake recruitment activities. They use job fairs, web sites, and visits to college and university certification programs as their primary tools. One approach used by some districts is to travel out of state to recruit new teachers. Another approach is a "grow your own" program where the district supports aides and other paraprofessionals already working in the district in becoming certified teachers. A few districts recruit new teachers for their district by sponsoring a school district ACP. Another recruitment activity is working with interested high school students by providing support, encouragement, opportunities to volunteer in classrooms, and assistance with college and scholarship applications.

Some school districts offer hiring bonuses. Of the 691 respondents to the 1998-99 TASA/TASB salary survey, 12 districts reported offering hiring bonuses averaging $1,417. The highest amount offered was $7,500 by one small school district.[23] One district reported offering a financial reward or "bounty" to teachers who successfully recruit new teachers. In some cases, recruitment of teachers means encouraging individuals to become certified (or recertified in a shortage area). Certification programs supply the largest numbers of incoming teachers for Texas schools, and they employ a variety of recruiting techniques.

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[23] TASA/TASB Administration/Professional Salary Survey. "Salaries and Benefits in Texas Public Schools: Administrative/Professional Report 1998-99," p. 39.

State Incentive and Funding Programs

There are several programs in the Texas statutes designed to provide incentives and funding that will encourage individuals to pursue careers in teaching. However, the programs have not been well funded or publicized.

Future Teachers Loan Fund

House Bill 72, the education reform bill of the 68th Texas Legislature, created the Future Teachers Loan Fund. As of the end of the 1995 fiscal year, the fund has been discontinued and no new funds have been appropriated.[24]

Repayment of Certain Teacher Education Loans

The Texas Legislature has authorized the Texas Higher Education Coordinating Board to provide assistance to qualified teachers to repay their student loans. To be eligible, a teacher must have completed at least one year of employment in the elementary or secondary schools in a designated shortage area as defined by the State Board of Education.[25] Although the loan repayment program is contained in statute, no appropriation has been made to fund the program.

Tuition Exemptions for Educational Aides

House Bill 571, 75th Legislative Session, amended Section 54.213 of the Texas Education Code to provide tuition exemptions for certified educational aides enrolled in courses necessary for certification as a teacher. The Legislative Budget Board estimated that over 16,000 aides would be eligible for the exemption at a potential cost to the state of approximately $18 million in 1998.[26]

For the 1997-98 academic year, 1,483 students received letters of eligibility for the program, and tuition reimbursements for the program are expected to be approximately $700,000. Approximately 60 percent of students are enrolled in public community colleges, 39 percent are at public universities, and the remaining one percent is enrolled at public technical colleges.[27]

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[24] Texas General Appropriations Act, 74th Legislature. Article III – Higher Education Coordinating Board, Rider 36.
[25] Texas Education Code, §§61.701-702.
[26] Legislative Budget Board, Fiscal Note for HB 571 as Engrossed. May 15, 1997.
[27] Texas Higher Education Coordinating Board, summary of Certified Educational Aide Exemption Program for the 1997-98 Academic Year.

Federal Incentive and Funding Programs

Teacher Training Programs

During the 1997 school year, TEA expended $16.7 million in Eisenhower Professional Development funds.[28] The purpose of the Eisenhower Professional Development Program is to provide financial assistance for school districts to ensure that teachers and other educators have access to intensive and sustained high-quality professional development aligned with the state curriculum standards. School districts, not teachers, are eligible for funds. The Eisenhower Program also provides funding for the Regional Collaboratives for Excellence in Science Teaching, located in the Science Education Center of the College of Education at the University of Texas at Austin. It also provides funding for the Texas Teachers Empowered for Achievement in Mathematics & Science (TexTEAMS), a project of the Charles A. Dana Center and the College of Natural Sciences at the University of Texas at Austin.

Loan Deferment and Cancellation Programs

TEA and the U.S. Department of Education work together to provide a number of opportunities for teachers to defer or cancel federal student loans. The Paul Douglas Teacher Scholarship program provides opportunities for deferments or cancellation on selected federal student loans for individuals who teach in the public schools. Teachers are able to shorten the period that they must work for cancellation by teaching in designated shortage areas. While individuals are continuing to participate in this program, no new deferments have been made since 1995.

Teachers may defer payments on a Federal Family Education Loan or a Ford Federal Direct Loan by teaching in a designated public school or shortage area. Loan cancellations are available for students with Perkins Loans for teaching in a designated low-income school (defined as 30 percent or more of enrolled students from low-income families).[29] TEA and the U. S. Department of Education jointly administer the program. To be eligible for the program, an individual must be teaching full-time in a designated school, and must continue to teach under those conditions to maintain program eligibility.

Individuals with loans under the Stafford Loan program may cancel up to $5,000 of a federal loan by teaching for five years.

HR 6 – Reauthorization of the Higher Education Act of 1965

The reauthorization bill contains two significant provisions relating to teacher recruitment. The first is a provision that provides loan forgiveness for student loans held

[28] Legislative Budget Board/Texas Education Agency, Federal Funds Supporting Schedule, 76th Legislative Session, ABEST report.
[29] Texas Education Agency, Memo to Superintendents. September 28, 1998.

by certain teachers in low-income areas. The program is directed specifically at teachers with skills in reading, writing, and mathematics.[30]

The bill also provides a $300 million appropriation for teacher training. Forty-five (45) percent of the money will be distributed in the form of state grants to be used for state teacher preparation activities, another 45 percent is to be distributed in the form of partnership grants to teacher training institutions and school districts, and the final 10 percent will be distributed to states in the form of competitive grants.[31]

Elementary and Secondary Education Act

The federal budget for fiscal 1999 contains an additional $1.1 billion to be sent directly to school districts to reduce class sizes and to train, test, recruit, and hire new teachers.[32] At this time it is unclear how much money might come to Texas under either of these new programs, although *Education Week* reports that the U. S. Department of Education estimates that Texas will receive $97 million to hire 2,500 new teachers.[33]

School District Recruitment Programs

As the need for certified teachers increases, school districts are working with a variety of institutions, such as regional service centers, colleges and universities and alternative certification programs, to locate and hire individuals to deliver educational services in their classrooms. Some school districts are developing their own programs to increase their visibility and expand the pool of teachers available to them. Selected school districts are profiled below to illustrate school district initiatives.

Austin Independent School District (AISD)

The Austin Independent School District started the 1998-99 school year with more than 30 unfilled teaching positions. In an effort to change the way the district staffs its classrooms, AISD is working with the New Teacher Project take a critical look staffing patterns and problems.

AISD is addressing two sets of problems related to its teaching pool—the district's image and its personnel system. AISD has been perceived as having an overpopulation of teachers because of its proximity to the University of Texas and the attraction of the city of Austin. It is no longer the case that Austin easily recruits teachers: it must now compete with other districts and the private sector to attract new personnel. AISD also needs a system that provides support to mid-career teachers to

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[30] U. S. Congress. "Higher Education Agreement." *Congressional Quarterly*, House Action Report No. 105-12, September 25, 1998, p. 7.
[31] Ibid., page 15.
[32] "White House Accepts Republican Education Funding Proposal." Press Release, Committee on Education and the Workforce. October 14, 1998.
[33] Joetta L. Sack. "Critics Doubt Teacher Plan's Effectiveness." Education Week on the Web. October 28, 1998.

keep them in the classroom, especially if they have certification in bilingual or special education.

Working with the New Teachers Project, AISD is addressing "pipeline" issues designed to attract the best candidates to Austin. This is done through the development of personal contacts with access to teaching candidates. These contacts include new teachers who are recent alumni of schools of education and influential individuals in education departments who help graduating seniors make decisions about where to teach.

The district is also working to increase training and support for principals who make hiring decisions. By increasing the cooperation between the district's central office recruiting personnel and the campus principals, individuals can be recruited with the best situation and "fit" in mind.

Pharr-San Juan-Alamo Independent School District (PSJA)

Pharr-San Juan-Alamo Independent School District has initiated a comprehensive new teacher induction program to bridge the transition between higher education institutions and public schools. The PSJA Induction Program consists of the following components: orientation, management, implementation, monitoring, and staff development

A three-day orientation to the district initiates the induction program. New teachers and their mentors participate in initial activities that promote better understanding of one another and the school district culture. Staff development for both new teachers and mentors is continuous throughout the year. A campus induction committee, campus coordinator, and district induction coordinator provide support. The district is also supporting this initiative by paying stipends to teachers who serve as mentors and allowing release time for new teachers to make classroom visits to observe other teachers. PSJA is an active partner with the South Texas Center for Professional Development and Teaching and thus works collaboratively with the University of Texas—Pan American to promote field-based teacher preparation experiences. This partnership has enabled the district to incorporate some of the innovative practices advocated by the school-university partnership into the teacher induction program.

Corpus Christi Independent School District (CCISD)

The Corpus Christi Independent School District took a new approach to attracting teachers for the 1998-99 school year. In order to attract teachers, the district recruiting personnel did more than just inform prospective teachers about the district—it "sold" Corpus Christi as a place to live and work. The district advertised teaching positions during the spring break tourist rush. They held job fairs during spring break when many college students were in the city and set up recruiting locations at the beach. The district advertised from Maine through Nebraska and worked with the bureau of tourism to promote the city as well as the school district.

The district's innovative approach to recruiting paid off. CCISD received 1,500 applications for its approximately 300 open jobs. In a typical prior year, CCISD had approximately 100 new hires each year, but with the new recruiting strategy, they had 396 new hires for the 98-99 school year.

CCISD found that because it does not pay the highest salaries in the state, it needed to compete for teachers using the advantages of location. Working with business leaders, the department of tourism and local colleges and universities, the district promoted the location, plus the potential opportunity to attend graduate school. CCISD made it easy for interested applicants to contact the district. They advertised on the web, and applicants could respond and submit their applications through the Internet. The district is on four free web sites and has its own web page. CCISD also had a dedicated phone line just for job applicants. Finally, the personnel director wrote a personal letter in response to each inquiry.

Pasadena Independent School District (PISD)

In an effort to increase the number of certified teachers in shortage areas, the Pasadena Independent School District has developed its own alternative certification program. The ACP works closely with the district's personnel department to identify qualified candidates. The ACP program only certifies teachers for which the district has determined a critical need. For the 1998 school year those need areas include special education, bilingual education, secondary math, and secondary science. In addition to seeking teachers in shortage areas, the ACP actively recruits minority candidates.

PISD has developed a program to assist ACP candidates in receiving financial aid to participate in their program. If a candidate agrees to teach in PISD for three years following completion of the program, the district will waive the $3,000 program tuition. If for any reason the candidate leaves the district before the three years are complete, he or she is responsible for tuition of $1,000 per year not completed.

Responses from School District Personnel Administrators

In addition to these responses, 14 school districts responded to a survey about recruitment activities. Respondents were not required to include a school district identifier on the survey. The following are the most common responses.

- School districts are increasingly forging partnerships with certifying institutions to assure a direct link to the supply of new teachers.

- Attendance at job fairs and college recruitment activities are now routine activities for school district personnel administrators, although for many of them these approaches do not yield nearly enough applicants for vacant positions.

- A few districts offered shortage stipends, but none currently offer a stipend simply for contract renewal.

- School districts believe that geographic location has much to do with their ability to attract good teachers.

- School personnel administrators were equally likely to mention the shortage of minority teacher applicants as shortages in math, science, bilingual education, and special education.

- Personnel administrators prefer to hire new teachers who come with a built-in support system such as mentoring and induction support that ACPs and some traditional certification programs provide to aid them in their first year of teaching.

According to school personnel administrators, districts rely on contacts at universities and alternative certification programs, newspaper advertising, area personnel services cooperatives, and job fairs as primary approaches to recruiting. Larger districts dispatch administrators to university recruitment centers throughout the nation to talk with prospective teachers. Once good relationships are established, a school district works hard to maintain the pipeline of supply. A few districts have begun to pay the expenses of candidates for a visit to the district. Many are posting openings on the Internet. Many districts target minority teachers and some, though not all, target bilingual and special education teachers as well.

District efforts are typically confined to aggressive advertising of positions and face-to-face recruiting, where possible. A few are offering hiring bonuses, although this may do little to retain teachers beyond the terms of the bonus arrangement. Several offer stipends for teaching in a shortage area. Such stipends are increasing in value: for example, in 1998 one district increased the stipend for bilingual teachers from $1,750 to $3,000. Tuition assistance is largely limited to currently employed teachers who are working on additional certification or to classroom aides who want to become certified. Very few districts are contemplating loan forgiveness programs or reimbursement of credentialing expenses to attract new teachers, primarily because such payments are likely to violate Texas law related to the use of public funds.[34] Several school districts noted that their recruiting efforts are under review. They want to reduce the cost of recruiting by targeting the individuals who are most likely to want to work in the district and by directing efforts toward "grow your own" programs such as those to assist paraprofessionals in becoming certified. Most districts surveyed plan to use more Internet-based tools, and they hope to offer more competitive salaries.

Recruitment by Certification Programs

There are a number of routes to becoming certified as a teacher in Texas, and they include traditional academic degree and certification programs, cooperative programs, and non-traditional ACPs. Traditional academic programs include undergraduate coursework in elementary and secondary education to obtain a baccalaureate degree, or

[34] Tex. Const. art. III, Sec. 51, 52.

graduate-school training, such as a Masters in Teaching. Cooperative efforts include collaborative programs such as the Centers for Professional Development in Teaching. Non-traditional approaches include alternative certification programs located at universities, regional education service centers, and school districts. Appendix C lists each certification program, by type, according to ESC region.

Alternative Certification Programs (ACPs)

There are twenty-seven state approved ACPs currently operating in Texas. Programs exist in school districts (4), Education Service Centers (13) and institutions of higher education (10). Most ACPs are linked to employment in specific school districts, offering assurance to participants that they will be prepared specifically for jobs they may have following program completion and assuring participating school districts that teachers are being prepared for high-need areas.

To enter an ACP program, an individual must meet the following criteria:

- hold a bachelor's degree
- have a college grade point average of at least 2.5 and a minimum number of course hours in the subject to be taught
- have acceptable scores on state assessment instruments
- meet language requirements for bilingual/ESL certification

Table 4 provides a comparison of the number of teaching licenses issued, and the route to certification from the 1993 school year through the 1997 school year. A person may obtain a license in more than one subject area; therefore the number of individuals certified in any year is less than the number of licenses issued. The data illustrate the significant impact of ACP programs on the pool of certified teachers. Table 4 also reveals the rise in emergency teaching permits during the most recent years. According to officials at SBEC, there are nearly 11,000 emergency permits issued in 1998. Although the table does not report the data, it should be noted that state and national data show alternative certification programs produce nearly half of all minority teachers.

Table 4
Teaching Certificates, 1993-1997

Route to Certification	1993	1994	1995	1996	1997
College Preparation Program	37,813	36,843	32,652	34,346	25,509
Emergency Permit	2,926	4,384	6,800	8,585	7,619
Alternative Certification Program	2,040	5,671	5,257	4,668	2,879

Source: State Board for Educator Certification

African American and Hispanic educators tend to stay in education longer if they are licensed through an alternative route.[35] Texas ACPs are a significant source of minority teachers for the Texas schools. Forty-one percent of those teachers certified by ACPs are minorities, compared to twenty-seven percent in traditional, university-based programs.[36]

Selected Recruitment Programs and Activities at Regional Education Service Centers

In order to gather information about recruiting practices in Texas, questionnaires were sent to all 20 ESCs to learn more about their support for school district recruitment of teachers. Fifteen (15) ESCs responded to the survey. Appendix B shows the list of respondents.

- All respondents consider teacher recruitment a high priority in their regions.
- Ten responding ESCs participate in ACPs for teachers.
- ESCs vary in the array of recruitment services they provide. One ESC has a 24-hour job referral line, two job fairs, an ACP, and collaborative efforts with several universities to train teachers within the area. Another ESC with fewer services has a personnel cooperative to share information among districts and a resume bank for use by districts within the region.
- ESCs that participate in the Texas Teacher Recruitment, Retention, and Assistance Program have a wider array of recruitment activities, including programs at high schools.

Texas ESCs serve many roles in recruiting teachers for Texas schools. They provide clearinghouses for candidate resumes and district job listings. Many of the ESCs have personnel cooperatives for the districts in their regions and sponsor annual job fairs where local school district administrators can conduct large-scale interviews to fill teaching positions. Most of the ESCs that responded to a survey about recruitment practices maintain web sites where school districts can post job openings to be viewed by prospective teacher candidates from Texas as well as other states. However, not all of the regions have programs to target prospective teachers in shortage or high demand areas. Below are profiles of four of the 15 responding ESCs. The profiles are intended to illustrate the array of programs and activities offered within the state.

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[35] Ann Bradley. "Report Suggests Alternative Paths as Solutions to Teacher Shortages." Education Week on the Web, October 21, 1998; and State Board for Educator Certification. *Final Report. Panel on Novice Teacher Induction Support System.* Austin: SBEC. November 6, 1998, Appendix Table 3 and 4.

[36] State Board for Educator Certification. *Final Report. Panel on Novice Teacher Induction Support System.* Austin: SBEC. November 6, 1998; and National Center for Education Information—Alternative Teacher Certification in Texas. Information provided by the State Board of Educator Certification.

Region I

Region I ESC in Edinburg, Texas, has a program designed to target high school seniors interested in teaching and paraprofessional educator (teacher aide) support. The "Grow Your Own" program is directed primarily at Hispanic students in the Region I school districts in an effort to direct more Hispanics into teaching. The ESC maintains a database on targeted high school students and tracks their progress toward certification. Region I also works closely with the Centers for Professional Development in Teaching (CPDT) at UT—Pan American and UT—Brownsville.[37]

Region I participates in the TEA-sponsored Texas Teacher Recruitment, Retention and Assistance (TTRRA) Program. The TTRRA program has three primary goals: increase the number of certified teachers in shortage areas, increase the diversity of the teaching population, and foster collaboration between education institutions and the community to expedite teacher certification.[38]

The Region I TTRRA program uses a variety of project strategies to direct potential new teachers into the profession. Each is described briefly below.

- Paraprofessional Recruitment. The project recognizes that paraprofessionals constitute a large pool of potential teachers. By providing information about programs and financial assistance, paraprofessional can be targeted for certification.

- Certification Assistance. By providing guides, study materials and review sessions, especially in shortage areas, teachers and prospective teachers receive assistance in preparing for the ExCET.

- Talented Student Search. Talented high school students are sought out and encouraged to pursue education as a career. The BESTT (Bridging the Educational Scene for Teachers of Tomorrow) program provides a framework for recruiting promising students and directing them towards teacher certification.

- Partnerships. The TTRRA project has developed partnerships between Houston area universities and community colleges to enable students to pursue their education and certification. The TTRRA project also participates in the Johns Hopkins Leadership Enhancement Academy, which brings together individuals from the U.S. and Mexico to share research findings and other information.

[37] Region I ESC Contact Questionnaire responses. November 4, 1998.
[38] Region I Education Service Center. *Program Report: Texas Teacher Recruitment, Retention and Assistance Program.* Edinburg, TX: Region I ESC, June 1998.

- Teacher Retention. The project focuses on providing assistance to those teachers at risk of leaving the profession, especially those in high turnover areas such as bilingual/ESL programs as well as minority teachers.

Region IV

Region IV ESC in Houston, Texas targets bilingual education, ESL, special education, and secondary-level math and science teacher preparation in its ACP. The program seeks to increase the number of bilingual certification candidates by working with the Mexican consulate in Houston and establishing ACP preparation programs in Mexico. The region's ACP program has two preparatory programs in Mexico, one in Guadalajara and one in Monterey, aimed at bringing more bilingual teachers into the system. Candidates from Mexico must meet all the regular program requirements and have a satisfactory score on the Test of English as a Foreign Language (TOEFL).[39]

Region IV is also a participant in the TTRRA program. The focus of the Region IV TTRRA program is to assist school districts within the region in recruiting, employing and retaining qualified teachers.[40] The TTRRA worked with school districts on a number of activities to pursue these goals.

- Assisting local school districts with projects to develop teachers within the district. These programs include career days and course offerings designed to interest high school juniors and seniors in teaching as a profession.

- Aggressively recruiting at over 50 colleges and universities to attract teachers to Region IV school districts. This includes developing initiatives with out-of-area colleges and universities to attract teachers to the area. The program conducted job fairs in the Gulf Coast region and had a cooperative arrangement with the University of Nebraska-Lincoln to bring student teachers to the Region IV area.

- Providing ExCET review sessions for critical teacher shortage certification areas. Nearly 800 teachers registered for ExCET study sessions in 1997.

In addition to these programs, Region IV ESC conducts an annual job fair for teachers featuring positions at 64 school districts. It maintains a 24-hour job referral phone line for all districts in the region. Nearly 3,000 calls were made to the job referral line in 1998. Region IV also coordinates cooperating advertising for over 30 school districts in publications, including major national minority publications.

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[39] Region IV ESC Contact Questionnaire responses. November 4, 1998.
[40] Region IV ESC, *ESC Region Four End-of-Year Report on the TTRRA for 1997-98*. Houston: Region IV ESC, September 29, 1998.

Region VII

Region VII ESC in Kilgore, Texas, supports a program called Teacher Express through its personnel services cooperative. The goal of the Teacher Express program is to provide districts with a pool of certified teacher candidates so that no additional action, such as an emergency certification or permit, will need to be taken by the district to place an individual in the classroom.

Teacher Express is a database containing information about certified teachers and those who are about to graduate with certification. The program does not accept information from prospective teachers until they have completed all of the necessary classroom training and have passed the ExCET test.

Teacher Express works with college and universities in Texas, Oklahoma, Arkansas, and Louisiana to recruit teachers for the region. The colleges of education in those states receive materials about the Teacher Express program, and students are encouraged to submit their names to the database.

The program is free of charge to potential teachers and all districts in the region. Districts can contact the program, and a list of potential teachers matching the required criteria will be generated. It is the responsibility of the district to contact the teacher candidate.

Region XIII

Region XIII ESC in Austin has one of the most comprehensive recruiting and professional development programs in the state. The Region XIII professional development program has four components: the statewide Troops to Teachers program (TTT), an electronic resume matching service, known as Resumex, for districts in the region, a selective ACP, and a personnel services and support function.

Troops to Teachers (TTT) is a recruiting program aimed at current and retired military personnel (it does not provide certification training). Interested individuals can find information about certification on a web site (www.ttt.esc13.tenet/edu/troop/tmittt/html), and Troops to Teachers is also linked to SBEC's web site. Transition offices for military personnel will also have information on Troops to Teachers. Project staff members at Region XIII ESC publish articles in Texas military base newspapers and present information at six or more job fairs each year.

The major function of TTT is to help people learn about certification requirements and teaching opportunities. A small staff at Region XIII ESC counsels people who inquire by phone. In the past three years, over 3,500 people have sought and received information and direction. In addition to information dissemination, Troops to Teachers maintains an Internet database of teacher

vacancies (www.troops.org.jobsearch). All Texas school districts have an opportunity to post job opportunities to this web site as well as to pull up names of former military personnel who are seeking teaching jobs. For the 1998 hiring season, Troops to Teachers had 600 districts with positions posted. In the month of March 1998, the job posting web site had over 250,000 "hits." Staff members maintain the site by removing postings after 90 days.

In 1993, Congress passed legislation to reimburse former military personnel for up to $5,000 of expenditure related to training to obtain certification. The appropriation ($6.8 Million) was from the Defense Activity for Non-Traditional Educational Support (DANTES). The program also reimbursed eligible school districts a percentage of the salary of Troops to Teachers participants. Federal funding for Texas expires October 1, 1999, and while some congressional representatives have expressed interest in continuing the program, funding is not assured.

According to the coordinator for Troops to Teachers, Texas school districts locate teaching candidates from out of state as well as in Texas through Troops to Teachers. The program has placed over 600 former military personnel in school districts and ACPs across the state. According to program staff, Troops to Teachers been successful in meeting teaching needs in shortage areas including special education, bilingual/ESL and math and science. The Troops to Teachers population is primarily male, and 35 percent of participants are minorities.[41]

Region XIII has implemented an electronically based resume-screening program, known as Resumex, for its personnel services cooperative. Instead of submitting separate applications to each school district in the region, applicants submit a resume to the system, which is scanned using Optical Character Recognition software and categorized by keywords such as "elementary education," "team teaching," or by subject area. Applicants then are asked to make a follow-up phone call and answer a series of questions over the phone to provide some additional information. Districts can call the ESC and ask for a search of all candidates meeting specific criteria and can be provided with a listing of all teachers who meet their potential needs. The program is in its first year, and, according to the program coordinator, response from both applicants and school districts has been positive.[42]

ESC XIII has a selective process for accepting applicants to its ACP as well. In addition to requiring that students have appropriate undergraduate coursework and a minimum grade point average, the ESC staff uses a structured interview process to screen candidates. Using a perceiver interview developed by the Gallup Corporation, ESC staff members screen candidates for characteristics

[41] Region XIII ESC. "Infopaper – Texas Military Initiative/Texas Troops to Teachers." Austin: Region XIII ESC, October 1998.
[42] Eileen Reed, Coordinator of Professional Development, ESC XIII. Personal interview with Debra S. Haas, November 5, 1998.

that indicate a high probability of success teaching in an urban school setting. Although approximately 400 to 500 potential candidates apply to the ACP each year, the acceptance level is about 200 candidates. Follow-up by ESC staff has found that these candidates do well in teaching situations and the Region XIII ESC program has a high demand for its ACP graduates.[43]

Selected Recruitment Programs and Activities at Institutions of Higher Education

Thirty-two (32) higher education institutions responded to a questionnaire about recruiting individuals for teacher certification programs. Respondents are listed in Appendix B. Highlights from their responses include the following.

- Institutions vary greatly in the effort they make to recruit individuals for teacher certification programs. Active institutions sponsor college fairs for prospective teachers, host seminars, support Future Teachers of America groups, and make frequent personal contacts to individuals who express some interest in teaching as a career. Some education departments are much less active, relying on individual admissions offices to conduct recruiting efforts and responding to inquiries when prospective students contact them.

- Many education departments have scholarship assistance for individuals who are in teacher certification programs, but these scholarships support very few students overall. Many of the reporting institutions noted that the cost of higher education is a major barrier to recruiting.

- The ability of students to pay tuition and the location and reputation of the institution are very important in determining whether students enroll and enter teacher certification programs. Also mentioned as considerations are the time required to complete all certification requirements and the hurdle posed by the ExCET assessment.

- About half of the responding certification programs have begun to work directly with school districts to tailor their program to promote field-based preparation.

The institutions that responded to a survey about recruitment of students for teacher preparation programs included public and private schools with both traditional and alternative certification programs. When asked to define a "good candidate" for a teaching program respondents generally said that students with moderate SAT scores (at least 1000) and a GPA of 2.5 were the target candidates for admission to educator preparation programs. There is no specific set of recruiting techniques associated with educator preparation programs.

While many higher education respondents said that they advertised course offerings and programs in publications such as course catalogs, brochures, and web sites,

[43] Ibid.

some institutions do not make a special effort to attract students to certification programs. In fact, it appears that recruitment into many teacher preparation programs is by self-selection on the part of the candidates themselves. Some higher education institutions indicated a new level of involvement with local school districts to assist non-certified personnel in obtaining certification and to help teachers become recertified in shortage areas.

When personnel at teacher preparation institutions were asked about some solutions to the teacher shortage problem, most (71 percent) identified better salaries for teachers as a way to attract teachers. Several mentioned that the quality of working conditions needs to improve and that teaching needs to become a respected profession. Other actions to retain teachers that were recommended include financial incentives for getting professional development, more effective laws related to student conduct, better induction programs for persons new to the profession, and teaching assignments tailored to the specific needs of the new teachers.

The section below profiles several higher education institutions in order to illustrate the diverse programs that are being undertaken in Texas.

University of Mary Hardin Baylor (UMHB)

UMHB has an active recruitment program directed at bringing students in to the University and directing them to the College of Education. The University sends recruiters to high school college days and college evenings. Three or four times a year UMHB has a "preview weekend" where students who are interested in the University are invited to spend the weekend and learn more about the institution. The College of Education makes a presentation for those interested in teaching and conducts hour-long face to face interviews with these prospective students.

The University also has recruitment programs with school districts in the area. A joint scholarship program exists between UMHB and Temple ISD. Seniors at Temple ISD can apply for a scholarship that takes them through two years of basic work at Temple College, paid for by the Temple Foundation. Students finish their certification programs at UMHB, which offers education courses beginning in the junior year. The University provides a $5,000 scholarship to these students. As a condition of the scholarship, the participants agree to teach in Temple ISD for three years. It is targeted at minority students. The program is in its early stages, and has limited funds. Presently the program has one certified graduate and two students currently enrolled.

University of North Texas

The University of North Texas (UNT) is involved in a number of collaborative efforts to recruit high school students into its teacher preparation programs.[44]

The Teacher Development Project involves UNT, Mountainview Community College and the Dallas Independent School District. Schools in the Oak Cliff section of Dallas, which has a high concentration of minority students, work with high school students to develop an awareness of teaching as a career. The schools also support the students to see that they are academically prepared for coursework at the community college. The community college provides mentoring, financial aid and advising services to students. UNT works with the community college to make sure that the transition to the four-year institution is smooth, and students complete their degrees at UNT. Students who complete the program are then interviewed by the Dallas school district for teaching positions.

UNT also participates in a program with other Dallas-area colleges, universities and community colleges to develop a core curriculum for students seeking certification. Each of the participating four-year institutions focuses on a specific component in the certification curriculum. UNT focuses on special education. Other participating institutions include UT—Arlington, UT—Dallas, Texas A&M—Commerce, and Texas Women's University. Courses are offered in conjunction with the Dallas County Community College District and are available to students at any participating institution.

Finally, UNT is developing distance learning programs with Ysleta ISD to provide coursework for their magnet high school for students interested in becoming teachers. Students taking the distance learning courses will earn both high school and college credit. Upon completing the courses, students will be able to transfer their credits to the teacher preparation program at UNT.

Sam Houston State University

Sam Houston State University (SHSU) has a number of programs designed to attract minority students to its education program. Through its Center for Professional Development and Educational Partnerships, SHSU has developed cooperative arrangements with surrounding school districts to develop interest in teaching in high school students, especially members of ethnic minorities. Working with the Aldine, Conroe and Cypress-Fairbanks school districts, has developed programs to meet the various needs and circumstances of students and to attract candidates to the teaching profession.

The effort to attract minority students to teacher preparation programs at SHSU has shown early success; for the 1994-95 school year student enrollments

[44] University of North Texas, responses to contact questionnaire. December 9, 1998.

in the College of Education and Applied Science were 3.4 percent African American and 6.2 percent Hispanic. The program has also focused on directing students towards critical shortage areas. Since the beginning of the program in 1993, nearly 1,600 students have been recommended for certification, with a significant number receiving certificates in critical needs areas such as bilingual, special education, secondary math and secondary science.[45]

Southwest Texas State University

Southwest Texas State University (SWTSU) has a number of programs targeted at attracting students to its certification programs. The programs are described below, and each targets a different group as a potential pool of teachers.

EDIT (Enhancing Diversity in Teaching) serves instructional aides, with an emphasis on Hispanic and African American aides. The purpose of the program is to assist instructional aides who are interested in completing a degree and qualifying to become a certified teacher. With some external funding, this program provides some financial assistance to the aides as they pursue their degrees.

CAMP (Certification and Master's Program) serves the needs of post-baccalaureate candidates who are changing careers. The CAMP program includes a 39-semester-hour master's degree in education with a major in elementary education, and it also includes the necessary competencies to qualify the graduate for a general elementary teaching certificate, applicable to grades one through six. The master's program includes a specialized cognate of nine semester credit hours which may lead to an elementary teaching specialization when additional coursework is completed after the degree.

CASE (Career Alternatives in Special Education) is a grant-assisted program targeted at candidates who have either separated or retired from a branch of the military services. Individuals are prepared to teach special education.

The Post-Baccalaureate Internship Program targets candidates in high shortage areas by replacing the traditional student teaching requirement with a supervised and mentored internship. This arrangement allows the candidate to be the teacher of record and earn beginning teacher pay while completing certification requirements on the job.

Tarleton State University

Tarleton State University uses scholarship programs to attract students to shortage teaching areas. Scholarships are available through the Fain Scholarship program for math and chemistry teachers, and the Arts & Sciences scholarship is available to students pursuing certification as math or science teachers.

[45] Sam Houston State University, responses to study questionnaire. November 24, 1998.

Tarleton State University works closely with school districts and community colleges in recruiting prospective teachers. Tarleton sponsors an organization known as the Effective Schools Project (ESP) which involves collaboration with 55 schools in the area on professional development projects. Through the ESP, students who are interested in pursuing teaching (and teachers interested in additional certification) come in contact with university personnel. Tarleton also has 2+2 agreements with nine community colleges to allow junior or community college students to make a smooth transfer to the certification program at the university.

Texas A&M University—Corpus Christi

Texas A&M—Corpus Christi prepares teachers for Texas classrooms and offers follow up support through an induction program to focus on retaining teachers while helping them to pursue a Masters in Education. The induction program offers first-year teachers nine semester hours towards a graduate program while helping them enhance their teaching skills in the classroom. Since its inception in 1991, the induction program has enrolled 365 participants, and as of August 1998, 98 teachers have completed their Masters of Science in Teaching. The Corpus Christi Independent School District is the largest participant in the induction program, with 217 teachers participating since 1991. The retention rate for teachers in the Corpus Christi district who have been involved the induction program is 98.7 percent.[46]

University of Texas at Austin

One notable exception to the self-selection that occurs in many colleges and universities is the University of Texas at Austin program for Teacher Preparation in Secondary Science and Math. This collaborative program between the College of Natural Sciences and the College of Education targets promising students and gives them the opportunity to teach science classes to elementary school children in the Austin area as a part of the curriculum. As of spring 1998, 47 students were enrolled in the program, 19 as first semester participants, and 28 as second semester participants. The program includes an evaluation component by the students, in which 100 percent of the students said that the early field-based teaching should continue, and 52 percent stated that after this experience they were "very certain" that they wanted to teach.[47]

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[46] Dr. Daniel Pierce, Chair: Curriculum and Instruction. Texas A&M University – Corpus Christi, response to contact questionnaire. December 7, 1998.

[47] University of Texas at Austin. Program for Teacher Preparation in Secondary Math and Science. Current Status of the Program, April 1998.

West Texas A&M University

West Texas A&M University uses its alternative certification program, called ACP—Panhandle Alternative Certification of Educators (PACE), to attract and train potential teachers from business and industry. When Texas Instruments closed its Lubbock facility, PACE personnel identified potential teachers from those who were laid off and did not want to leave the area. West Texas A&M is also offering alternative certification courses over the Internet to accommodate potential students who may not be able to take courses within the constraints of a traditional academic schedule.[48]

Recruitment Programs at Centers for Professional Development of Teachers (CPDT)

In 1991, legislation passed that allows universities with approved teacher education programs to vary from existing standards by restructuring the preservice and inservice preparation of educators to a field-based model, integrating technology and innovative teaching practices. These programs are collaboratively developed in partnership with public school teachers and administrators, and with business and community representatives. The Centers for Professional Development of Teachers are performance-based" and link the programs to the success of schools and students. Eight CPDTs were funded during the initial year, 1992, and by Spring 1999, 28 out of 34 Texas public institutions with teacher education programs had been approved to utilize this model. CPDTs are granted initial funding for the first three-to-four years with the expectation that they will become self-sustaining.

In order to support universities' efforts to give students more training in school settings, the Higher Education Coordinating Board designates appropriately designed courses as eligible for formula funding at a higher rate than regular teacher education courses. In 1996, 25 Texas public universities offered 672 sections of 194 field-based courses to about 15,000 students. Appendix C shows the location of CPDTs by ESC region.

CPDTs have been key in restructuring the preparation of educators through the collaboration with school districts and ESC partners in a field-based setting, the alignment of the content courses with the school curriculum, the emphasis on the Texas Essential Knowledge and Skills and the Learner-Centered Proficiencies, the use of mentoring and modeling activities, and the emphasis on technology training. In 1998-99, eight CPDTs received funds to create, replicate, or expand innovative models to eliminate teacher shortages in critical subject areas. The projects include a magnet teacher high school, strategies for distance learning, targeting post-baccalaureate students and providing tailored scheduling, working with paraprofessionals, distributing promotional materials, creating a speakers bureau to address high school and college students, developing web sites for information and recruitment, developing preservice and inservice partnerships, developing marketing strategies, and improving access to technology for enhancing instruction.

[48] West Texas A&M University, response to contact questionnaire. November 6, 1998.

A telephone survey of CPDTs was conducted in December 1998, with 21 Centers located in 31 colleges and universities reporting. Responding CPDTs are listed in Appendix B. Below are highlights from the survey responses.

- CPDTs develop strong ties to school districts in their geographic area and see their purpose as serving the needs of the region.

- The number of CPDT programs targeted to school paraprofessionals is increasing.

- CPDTs do not use recruiting approaches that are different from those used by colleges and universities with traditional educator certification programs. As with the traditional programs, most students self-select to become teachers.

- CPDTs have limited capacity to help participants with financial aid.

- CPDT administrators report that low salaries and low status of teachers keep people from entering teaching. This result contrasts with written responses of university departments of education: they noted most frequently the cost of higher education as a significant barrier.

CPDTs recruit primarily through the universities where they are located. This, again, involves the regular university admissions process, brochures, visits to high schools on "college night," information posted on a web site (or a CPDT web site link through the university web site), and responses to individual requests for information. CPDTs are a little more focused in their recruiting efforts than many traditional institutions of higher education because they have designated school districts as their partners. Nine institutions have once- or twice-yearly programs with high school students to develop interest in teaching. One program reported a mentoring program with high school students that encourages them to become teachers. Ten of the reporting institutions recruit paraprofessionals (teacher aides) to become certified teachers. A few programs recruit retired military personnel because the institution is located near a military base. Four institutions reported that they recruit specifically for shortages in special education; six recruit for bilingual education; four for math. Four institutions specifically mentioned recruiting minority teaching candidates. Six institutions reported that scholarships serve as a recruiting tool for individuals who want to teach in a shortage area. Several institutions that responded to questions about their programs noted that they had not been approved to offer programs in some shortage areas (special education and bilingual education). Other institutions noted that they respond to geographic needs that sometimes do not coincide with statewide shortage areas. A few respondents commented that they don't recruit because the institution already attracts enough students to fill the program.

Over half of the responding institutions rely on university admissions to undertake recruiting tasks. A few institutions characterize their approach as being responsive primarily to the needs of the immediate geographic area and the expressed needs of

incoming students. They commented that they did not need to recruit because their institution was popular or because it was the only choice within a region. Several CPDTs that undertake some general recruiting efforts do not recruit for shortage areas even if they are prepared to train teachers for those areas. One CPDT noted that bilingual teachers are not in high need in the region, so the program does not target bilingual candidates with recruiting information. A few CPDTs rely on other university departments to steer interested students to the program. In effect, some CPDTs do not have active recruiting programs.

Publicizing and providing financial aid opportunities is an important recruiting tool. When institutions were asked to explain how they help CPDT participants gain scholarships, most respondents (55 percent) commented that the university financial aid office manages this function. A few commented that they make a special effort to encourage students to check with the financial aid office. Three respondents reported that the college of education has its own scholarships available to people preparing to teach, and five respondents said a special grant or scholarship program was available for students in a shortage area. A few institutions have work-study programs to assist students in meeting education expenses.

Most responding institutions (71 percent) do not have plans to expand recruiting efforts or were unclear about plans that they thought were being made by others in the institution. Two programs will do more recruiting of minority teacher candidates and three are preparing grant proposals to get resources to train teachers for shortage areas. One school commented that it plans to raise standards in order to attract candidates. Three said that the institution has recently expanded recruitment efforts.

Most institutions do not conduct follow-up activities with individuals they have tried to recruit; however, 58 percent of the responding institutions have a follow-up process with graduates. Individuals who responded to the questionnaire were not always aware of what the follow-up activities revealed. About half of those who reported the results of surveys indicated that graduates remain in teaching for 3 to five years. Several respondents (13 percent) noted that the retention rate for their program was the same as the national retention rate.

Almost all of the reporting institutions commented that teacher salaries are a barrier to recruiting. Five respondents identified low status of teaching as a barrier, and five commented about the reported working conditions for teachers being a barrier to recruiting. Another four commented that discipline problems in the schools are a barrier to recruitment. Only one respondent commented that higher admissions standards were a barrier to preparation, and one commented that the cost of becoming certified was a barrier. Other barriers noted by respondents were the alternatives now available to college-educated people and balancing the demands of certification preparation, family life, and jobs.

Responses to Shortages: Teacher Retention

Retaining teachers is just as important to alleviating teacher shortages as recruiting new staff. A federal report, the *1998 Condition of Education*, provides a list of reasons cited by teachers for leaving the teaching profession. Of those who left, 27 percent retired and 24 percent left because of a move or because of child rearing or pregnancy. Just over six percent stated they were leaving for a better salary or benefits. About 12 percent cited dissatisfaction with teaching or "personal reasons" for leaving.[49] An earlier study of teacher retention and turnover conducted at the University of Pennsylvania and published by the National Center for Education Statistics reports a strong relationship between teacher transfers and attrition and lower salaries.[50] This information seems to indicate that successful teacher retention programs should focus not only on salary and benefits, but on non-monetary conditions such as positive working relationships, training and professionalism as well.

In its 1996 Texas Teacher Preparation Study, TEA reported that within their first five years, many new teachers left teaching with no intention of returning. The study also states that the longer teachers are in the classroom, the less likely they are to leave.[51] More recently, the Panel for Texas Novice Teacher Induction Support stated in its preliminary report that 19 percent of new teachers leave after the first year of teaching, 12 percent after the second year, and 50 percent after the third year.[52] Data from a 1996 report on teachers by TEA illustrates that it is most difficult to retain teachers with less than one year of experience, either within a district or in the profession generally.[53] First-year teachers left the school district in which they had been teaching at a rate of 15.6 percent and left the profession at a rate of 15.8 percent. Attrition rates fall as teaching experience increases, until the number of years in the profession exceeds 25 percent. Table 5 shows retention and attrition rates by years of experience for the 1992-93 school year.[54]

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[49] National Center for Education Statistics. *The Condition of Education 1998*. Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, Table 59-2, p. 305.
[50] E. E. Boe, S. A. Bobbitt, L. H. Cook, S. D. Whitener, and A. L. Weber. *Predictors of Retention, Transfer, and Attrition of Special and General Education Teachers: Data from the 1989 Teacher Followup Survey*. Washington, DC: National Center for Education Statistics, 1996, p. x.
[51] Texas Education Agency. *The Preparation and 'Staying Power' of New Texas Teachers: Texas Teacher Preparation Study Final Report*. Austin: TEA, January 1996, p. 6.
[52] State Board for Educator Certification. *Final Report: Panel for Novice Teacher Induction Support System*, Austin: SBEC, November 6, 1998, p. 1.
[53] Texas Education Agency. *Texas Teacher Retention, Mobility and Attrition*. Policy Research Report Number 6. Austin: TEA, May 1995.
[54] Ibid. Chart 7, page 6.

Table 5
Texas Teacher Retention and Attrition Rates by Experience, 1992-93

Full-time teaching experience	Percent Staying within District	Percent Moving Districts	Retention Rate (stayers + movers)	Attrition Rate (leavers)
Less than 1 year	68.8%	15.6%	84.2%	15.8%
1 year	73.9%	15.5%	89.4%	10.6%
2 years	75.8%	14.5%	90.3%	9.7%
3 years	76.4%	13.7%	90.1%	9.9%
4-9 years	80.5%	11.6%	92.1%	7.9%
10-19 years	85.9%	8.9%	94.8%	5.2%
20-24 years	87.7%	6.7%	94.4%	5.6%
25 years or more	82.8%	5.0%	87.8%	12.2%

Source: Texas Education Agency

School District Retention Programs

Administrators from 14 Texas school districts presented their approaches to retaining teachers in the form of survey responses. Respondents were not required to identify their school districts. Highlights of their responses are as follows.

- School districts seek first to develop and re-train teachers already in the district. Better staff development was mentioned most often as a retention tool.

- More districts are offering hiring incentives and stipends for teachers in shortage areas.

- Mentoring and induction programs appear to personnel administrators to be promising approaches, but most report that they do not fully implement these programs because of the cost involved. Instead of year-long support, many induction programs consist of a few extra days of orientation and assignment of an unpaid mentor to new teachers.

- Personnel administrators believe teachers leave teaching because of family relocation, pregnancy, or desire to spend more time with their own children.

One district has a loan cancellation plan whereby it supports teachers in the district who return to school to become certified in a shortage area. The financial support is contingent on the teacher's continued employment in the district for a period of time. The same district provides a notebook computer for teachers and believes that this type of

support is very attractive to teachers and helps retain them in the district. Many districts hope to retain teachers with somewhat higher salaries, more district-paid benefits, and higher stipends for extra duty.

Personnel administrators described induction year programs and mentor programs as promising approaches to helping retain new teachers. However, they expressed concern that there are insufficient financial resources to provide mentors with pay and release time. Other evidence suggests that most Texas school districts provide very little true induction assistance.[55] Most districts set aside several days before school starts to train teachers who are new to the district, but they do not incorporate a year-long induction program into the plan to retain teachers.

School districts vary in their efforts to identify why teachers leave the district. Some conduct face-to-face exit interviews, but most that try to learn why teachers leave use a written exit survey (it may accompany the last paycheck). District personnel administrators believe that most teachers leave because of a family relocation, pregnancy, or desire to spend more time at home with family and small children. Several personnel administrators expressed a desire to implement flexible teaching schedules to accommodate teacher home and family needs, but several said that such arrangements were difficult to work out.

Leaving to teach in another district is another major reason for leaving a district. This reason may be linked to compensation concerns, but there is little information to confirm this conclusion. A few personnel directors noted that dissatisfaction with teaching and dissatisfaction with teacher pay were important reasons why teachers leave a school district (and perhaps leave teaching altogether).

Induction Programs

Teacher induction programs are designed to help new or novice teachers adjust to the teaching environment, overcome the obstacles that they encounter in their early years, and increase their retention rate in public schools.

In 1998, the Texas Association of School Personnel Administrators conducted a survey of school districts to gather information about teacher induction. The Association received 145 responses from districts that have such programs. Over 95 percent of respondents said that the district has mentors for beginning teachers, and almost all of those provide full-year support for the teachers and mentors. Of those districts, 21 or 16 percent offer some kind of compensation, and two offer "comp time" to mentors instead of pay.

SBEC convened an expert panel in January 1998 to investigate, deliberate, and acquire input from Texas educators on induction of Texas teachers. The panel used written feedback forms, conference presentations, focus groups, presentations at the

[55] State Board for Educator Certification. *Final Report, Panel for Texas Novice Teacher Induction Support Systems.* Austin: SBEC, November 6, 1998.

SBEC monthly meetings, and a discussion session with professional organization representatives. Together, this information supports the panel recommendation that Texas teachers receive a minimum of two years of induction programming, with the first year focused on the basic mechanics of teaching and a second year emphasizing effective instructional practices. The panel recommended all novice teachers be assigned a mentor and be given time to spend with the mentor as well as time for formal professional development programs.[56]

The goals of induction programs include both better classroom performance and lower attrition rates for teachers. As a part of this study, selected school districts with established induction programs were contacted and interviewed to assess the impact of induction programs on teaching.[57] In each case the district provided two-year induction programs that included mentors and time for professional development. District staff felt that the programs improved the quality of classroom delivery and made teachers feel better about working in the district, but not all districts conduct an analysis to see if the programs are reducing the teacher attrition rate. One district that has conducted follow-up investigations reports a 98 percent retention rate of teachers who completed its induction program. Evidence from national studies of induction also shows it to be a powerful predictor of retention in the field.[58] Evidence in Texas confirms those findings.[59]

Recommendations

It is clear that Texas has an increasing need for certified teachers, especially in shortage areas such as mathematics, science, bilingual/ESL, foreign language, technology education, and special education. This need is driven by rapid growth in student enrollment, by attrition of certified teachers (including retirements), and by enrollments of student groups that have been identified with special educational needs.

Many institutions throughout the state are making efforts to recruit new teachers and to provide enhanced training for existing personnel. However, these activities are not well publicized nor well understood by other training institutions. Institutions are not linked in a fashion that facilitates a statewide effort toward the goals of teacher recruitment and retention.

Recommendations for Teacher Recruitment

- Provide financial incentives to prepare teachers for Texas public schools. Incentive programs and opportunities should be well publicized and serve as a recruiting tool

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[56] Ibid.

[57] Bob Pressley, Assistant Superintendent, Hays Consolidated School District, and Judy Whittaker, Director of Professional Development, Plano Independent School District. Phone interviews by Debra S. Haas, October 27, 1998.

[58] National Evaluation Systems, Inc. "The Induction Years: The Beginning Teacher." Chicago: Author, 1997.

[59] Texas State Board for Educator Certification. *Report of the Panel on Novice Teacher Induction Support System.* Austin: SBEC, August 7, 1998.

for all approved programs, including alternative certification programs. Financial incentives should include the following:

◊ Develop a Texas Educator Scholarship Program targeted toward outstanding high school students and adults changing careers who enroll in teacher certification programs.

◊ Implement a loan forgiveness program for individuals who prepare for and teach in shortage areas.

◊ Fund the Texas Future Teachers Loan Fund and publicize the program.

◊ Provide financial incentives to institutions that certify teachers in shortage areas.

◊ Texas should devise a way to provide compensation for the field-based activities of preservice teachers.

◊ Provide discretionary funding to encourage higher education institutions and school districts to collaborate on activities to address critical teacher shortages.

◊ Employ staff whose responsibility it is to enlist the media to publicize the teacher shortage problem as well as opportunities to enter the profession.

Recommendations for Teacher Retention

- Develop, implement, and fund teacher induction programs in Texas public schools to assist new teachers in their first two years.

  ◊ Provide resources to link initial preparation and induction into the profession by increasing collaboration between the preparation programs and school districts.

  ◊ Provide funds to school districts to support induction activities, including stipends for mentor teacher programs and additional resources to implement a dynamic performance assessment system that will guide the continuing development of new teachers.

- Provide financial support to teachers already in Texas classrooms who are willing to work toward new certification in a shortage field.

- Provide increased support for educator preparation programs to offset the increased cost of field-based preparation.

- Provide a grant application program for school districts to encourage development of innovative teacher retention programs. Innovative approaches might include child care arrangements for teacher's children, support for teacher networks, new models for professional development, and other local initiatives.

Recommendations for Improving Information
About Professional Opportunities in Teaching

- Support and enhance efforts already underway to provide a central source of information for individuals seeking Texas teacher certification.

- Implement a data system to track pre-service teachers, employed teachers, and former teachers. Data from the system would permit the study of effectiveness of financial incentives in recruiting teachers. It would also provide information about working conditions for teachers and reasons for attrition..

- Implement a comprehensive electronic statewide job bank that is an effective tool for certified individuals to seek teaching positions in Texas and that also serves as an effective tool for school districts seeking qualified teachers.

It seems clear that Texas teacher preparation programs and school districts need a coordinated system of teacher preparation and teacher employment. A well-articulated system would improve recruitment, link preparation and certification with actual employment requirements, and support new teachers so that they are more likely to remain in teaching for five or more years.

APPENDIX A

A National Perspective

States and school districts are looking at a variety of teacher recruitment options including the use of signing bonuses, housing and relocation packages, higher salaries, tuition reimbursement, and other incentives. For example, the superintendent of Maryland public schools proposed a $50 million package of signing bonuses and tax breaks to lure people into teaching careers. State officials predict a potentially severe teacher shortage in Maryland and other states as "baby boomers" who now dominate the teacher ranks begin to retire.[60] In fall 1998, Baltimore schools offered new teachers a $5,000 home-buying grant to assist them with closing costs or down payments. In addition, the district offered $1,200 to teachers who are moving from another state to teach in the district.[61]

North Carolina has been working for over a decade to respond to the need for additional teachers. The North Carolina Teaching Fellows program was created in 1986 through the collaborative efforts of business, education, and political leadership to encourage outstanding high school seniors to enter the teaching profession. Already, over 4,800 high school seniors have been selected on the basis of their talent and teaching potential to receive a $5,000 per year scholarship to selected public and private institutions with teacher education programs. Recipients must agree to teach four years in one of the state's public schools or government schools following graduation from college. Over 1,500 Teaching Fellows graduates have taught in public schools in counties throughout North Carolina.[62]

The state of California estimates a need for approximately 300,000 new teachers in the next decade and is spending money on teacher preparation, recruitment, and mentoring programs at a record rate.[63] California has set aside $66 million for teacher induction in an effort to retain the new teachers it is bringing on to serve growing enrollments and additional classes required by lower class size requirements.

In the past decade, U.S. teacher preparation programs and institutions have produced more people certified to teach than are needed to fill reported shortages. The surplus of prepared people does not, however, alleviate the problems facing school districts. Some individuals are certified to teach in fields where no shortages exist (e.g., elementary education, secondary English) and they are reluctant to become recertified to teach in shortage fields. Jobs are available in areas where newly certified teachers do not want to locate (remote and rural areas) or in inner cities where teaching is more challenging. In addition, jobs are open for math, science, and technology education

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[60] Amy Argetsinger. "Md. Superintendent Unveils Plan to Lure New Teachers." *Washington Post on the Web*, October 28, 1998.

[61] Karen Abercrombie. "Baltimore Offering Teachers Housing Bonuses," *Education Week*, June 3, 1998 p. 5.

[62] *North Carolina Teaching Fellows Program*, Public School Forum of North Carolina, Raleigh, N.C., 1998.

[63] Amy Argetsinger, Op. Cit., October 1998.

teachers in part because individuals with preparation in these fields are lured away by higher-paying jobs in the private sector. Finally, there are individuals certified to teach who are not in the workforce because of health or family considerations.

To determine the efforts of other states in the areas of teacher recruitment, staff from the Region XX ESC contacted state departments of education and reviewed each state's web site.[64] Some states indicated that there was no shortage of teachers in the state. In the states where a teacher shortage was acknowledged, the most common recruitment strategies included:

- A state-supported teacher placement system-including a database of teacher applicants and vacancies, and a web site.
- Loan forgiveness programs for teacher shortage areas or, in some cases, for anyone entering the field of education.
- A variety of financial strategies including financial support for minorities entering education and incentive programs for shortage areas.
- An increased emphasis on alternative certification programs.

Because teacher shortages appear to be related to retention as well as recruitment, states have begun to implement new policies to keep teachers in the classroom. Among the most frequently voiced complaints of current and former teachers is that working conditions in schools need improvement. These improvements include smaller class sizes, support from school and district administrators, better student discipline, more professional development opportunities, teaching assignments aligned with certification and background, and extra compensation for difficult and time-consuming duties.

Policies to build supportive work environments, salary and other financial incentives, and professional development opportunities are all components of successful retention programs. For example, New Haven Unified School District in California has found that its emphasis on high standards combined with student and teacher learning opportunities that include teacher induction programs have given it exceptionally high retention rates.[65] States such as California and Texas have reduced class size to improve student performance. Texas has passed laws giving teachers more authority to remove disruptive students from their classes. More school districts offer extra-duty stipends.

Investing in teaching and teachers continues to be an important and pervasive issue throughout the country. Academic standards for student performance are rising. Parents and business and community representatives want to be assured that competent and qualified teachers are provided for every student. The National Commission on Teaching and America's Future has gathered research that clearly demonstrates that teacher quality is the factor that matters most for student learning.[66]

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[64] Survey of State Departments of Education and their Web Sites. Staff of Region XX ESC. A summary table of contact information is included as an appendix to this report.
[65] *The Numbers Game*, 1998, p.23
[66] Linda Darling-Hammond and Barnett Berry. "Investing in Teaching." *Education Week on the Web*. May 27, 1998.

APPENDIX B
Project Respondents

Regional Education Service Centers (ESC)

ESC Region I, Edinburg
ESC Region III, Victoria
ESC Region IV, Houston
ESC Region VI, Huntsville
ESC Region VII, Kilgore
ESC Region IX, Wichita Falls
ESC Region XI, Fort Worth
ESC Region XII, Waco
ESC Region XIII, Austin
ESC Region XIV, Abilene
ESC Region XV, San Angelo
ESC Region XVII, Lubbock
ESC Region XVIII, Midland
ESC Region XIX, El Paso
ESC Region XX, San Antonio

Institutions of Higher Education

Abilene Christian University
Angelo State University
Baylor University
Houston Baptist University
Huston-Tillotson College
Lubbock Christian University
McMurray University
Midwestern State University
Sam Houston State University
Southwest Texas State University
Stephen F. Austin State University
Tarleton State University
Texas A&M University
Texas A&M University—Commerce
Texas A&M University—Corpus Christi
Texas Christian University
Texas Southern University
Texas Wesleyan University
Texas Woman's University
Trinity University
University of Dallas
University of Houston
University of Houston—Downtown

University of Mary Hardin Baylor
University of North Texas
University of Texas—Arlington
University of Texas at Austin (Secondary Science & Math Teacher Prep. Program)
University of Texas—Dallas
University of Texas—Pan American
University of Texas—Permian Basin
University of Texas—Tyler
West Texas A&M University (Canyon)

Alternative Certification Programs

Region III ESC, Victoria
Region IV ESC, Houston
Region VI ESC, Huntsville
Region XI ESC, Fort Worth
Region XII ESC, Waco
Region XIII ESC, Austin
Region XVIII ESC, Midland
Region XIX ESC, El Paso
Huston-Tillotson College
Tarleton State University
University of Texas—Pan American
West Texas A&M University
Pasadena ISD

Center for Professional Development in Teaching Respondents

Northeast CPDT, Texas A&M University—Commerce
Panhandle, South Plains CPDT, Texas Tech University
Panhandle, South Plains CPDT, Lubbock Christian
Panhandle, South Plains CPDT, Wayland Baptist University
Big Country CPDT, Abilene Christian
Big Country CPDT, Howard Payne University
Big Country CPDT, McMurray University
Big Country CPDT, Hardin Simmons University
Lower Valley CPDT, University of Texas—Brownsville
Permian Basin CPDT, University of Texas—Permian Basin
South Texas CPDT, University of Texas—Pan American
Lamar University CPDT
Center for Educational Development and Excellence, St Mary's University
Center for Educational Development and Excellence, Incarnate Word
Center for Educational Development and Excellence, University of Texas—San Antonio
Center for Educational Development and Excellence, Trinity University

University of North Texas CPDT
Houston Consortium of Urban PDT Centers, University of Houston
Houston Consortium of Urban PDT Centers, University of St. Thomas
Houston Consortium of Urban PDT Centers, Texas Southern University
University of Houston Clear Lake CPDT
Collaborative Community Professional Dev. Center, Texas Woman's University
University of Houston Downtown CPDT
S.R. Apple Center CPDT, Sul Ross State University
Southwest Texas CPDT, Southwest Texas State University
El Paso CPDT, University of Texas as El Paso
Hill Country CPDT, Schreiner College
Regional Collaborative CPDT, Texas A&M International University
The Center for Professional Teacher Education, University of Texas—Arlington
Texas A&M University—Corpus Christi CPDT
Texas A&M University—Texarkana CPDT
The Partners Project CPDT, Baylor University

Texas School Districts that Responded to a Survey for Personnel Administrators

Angleton ISD
College Station ISD
Cypress-Fairbanks ISD
Del Valle ISD
Fort Bend ISD
Fort Stockton ISD
Gregory-Portland ISD
Hurst-Euless-Bedford ISD
Irving ISD
LaMarque ISD
McAllen ISD
Midland ISD
Midlothian ISD
anonymous (1)

APPENDIX C
Educator Preparation Programs by Region

Region I	Brownsville	University of Texas-Brownsville	CPDT and ACP
	Edinburg	University of Texas-Pan American	CPDT and ACP
	Laredo	Texas A&M International Univ.	CPDT and ACP
Region II	Corpus Christi	ESC 2	ACP
		Texas A&M Univ.-Corpus Christi	CPDT
	Kingsville	Texas A&M Univ.-Kingsville	CPDT
Region III	Victoria	ESC 3	ACP
		University of Houston-Victoria	CPDT
Region IV	Houston	ESC 4	ACP
		Houston ISD	ACP
		Houston Baptist Univ.	CPDT
		Rice University	Traditional Program
		Texas Southern Univ.	CPDT
		University of Houston	CPDT
		University of Houston-Clear Lake	CPDT
		University of Houston-Downtown	CPDT
		University of St. Thomas	CPDT
	Pasadena	Pasadena ISD	ACP
	Prairie View	Prairie View A&M	ACP
Region V	Beaumont	Lamar University	CPDT and ACP
Region VI	College Station	Texas A&M Univ.	CPDT
	Huntsville	ESC 6	ACP
		San Houston State Univ.	CPDT
Region VII	Hawkins	Jarvis Christian College	Traditional
	Longview	Le Tourneau Univ.	Traditional Program
	Marshall	East TX Baptist Univ.	Traditional Program
		Wiley College	Traditional Program

Region VII (cont.)	Nacogdoches	Stephen F. Austin State Univ.	CPDT
	Tyler	Texas College	Traditional Program
		University of Texas-Tyler	Traditional Program
Region VIII	Texarkana	East Texas State Univ.-Texarkana	CPDT
Region IX	Wichita Falls	ESC 9	ACP
		Midwestern State Univ.	Traditional Program
Region X	Commerce	East Texas State Univ- Commerce	CPDT
	Dallas	Dallas Baptist Univ.	Traditional Program
		Dallas ISD	ACP
		Paul Quinn College	Traditional Program
		Southern Methodist University	Traditional Program
		University of Texas-Dallas	Traditional Program
	Irving	University of Dallas	Traditional Program
	Richardson	ESC 10	ACP
	Sherman	Austin College	Traditional Program
	Waxahachie	Southwestern Assemblies of God	Traditional program
Region XI	Arlington	University of Texas-Arlington	CPDT
	Denton	Texas Woman's University	CPDT
		Univ. of North Texas	CPDT
	Fort Worth	ESC 11	ACP
		Fort Worth ISD	ACP
		Texas Christian University	Traditional Program
		Texas Wesleyan University	Traditional program
	Keene	Southwestern Adventist College	Traditional Program
	Stephenville	Tarleton State Univ.	Traditional and ACP
Region XII	Belton	Univ. of Mary Hardin Baylor	CPDT
	Killeen	University of Central Texas	Traditional Program

Region XII (cont.)	Waco	Baylor University	CPDT
		ESC 12	ACP
Region XIII	Austin	Concordia Univ. at Austin	CPDT
		ESC 13	ACP
		Huston-Tillotson College	CPDT and ACP
		St. Edward's Univ.	Traditional Program
		University of Texas-Austin	Traditional Program
	Georgetown	Southwestern Univ.	Traditional Program
	San Marcos	Southwest Texas State University	CPDT
	Seguin	Texas Lutheran College	Traditional program
Region XIV	Abilene	Abilene Christian	CPDT
		ESC 14	ACP
		Hardin Simmons University	CPDT
		McMurray University	CPDT
Region XV	Brownwood	Howard Payne Univ.	CPDT
	San Angelo	Angelo State Univ.	Traditional Program
Region XVI	Canyon	West Texas A&M Univ.	CPDT, ACP
Region XVII	Lubbock	Lubbock Christian Univ.	CPDT
		Texas Tech Univ.	CPDT
	Plainview	Wayland Baptist Univ.	CPDT
Region XVIII	Alpine	Sul Ross State Univ.	CPDT
	Midland	ESC 18	ACP
	Odessa	University of Texas-Permian Basin	CPDT
Region XIX	El Paso	ESC 19	ACP
		University of Texas-El Paso	CPDT, ACP
Region XX	Kerrville	Schreiner College	CPDT, ACP
	San Antonio	ESC 20	ACP
		University of the Incarnate Word	CPDT
		Our Lady of the Lake Univ.	CPDT
		St Mary's Univ.	CPDT

Region XX (cont.)	San Antonio	Trinity University	CPDT
		University of Texas-San Antonio	CPDT
	Uvalde	Sul Ross State Univ-Uvalde	Traditional Program